Book for summer collecting trip, June, July, August, 1929. Diary number seven. Previously there have been 314 boxes of specimens, and mammals including no. 254.

- June 14. This has been a very hard and strenuous day of packing, managing affairs, and meeting social obligations. I have 17 loads, one head coolie, and two men to carry a semi-sedan chair. There are five collectors besides myself and anyone who gets footsore will ride.
- June 15. Last night I worked until two o'clock, but got things all ready, including the listing of the contents of the boxes. I got to bed about 2:30 A. M. The coolies arrived at five. I had breakfast and got an early start, we travelled 80 li to Gav Tsang or High Village. We had to wade a swollen stream, in which a coolie sprained his ankle. The netter Chen and Yang Fong Tsang have headaches. It was a very hot day. We got some good insects.
- June 16. We left Kao' Tsang at about five o'clock, The first 30 li is over a very bad road if the road is wet from a recent rain. Fortunately it was dry. In one spot robbers robbed a party two days ago, and we were told that nine armed robbers were on that road this morning. Evidently they heard we were coming and evacuated. We had to cross three creeks and the river besides. We made 85 li to Li Chi. We got a good number of insects, mostly bees. The day was broiling hot.
- June 17. About dark last night I began to notice black cumulus clouds in different parts of the sky. Occasionally there was a flash of lightning. I prophesied that there was a storm coming, but nobody believed it. It began to rain a little at about ten o'clock, and about eleven o'clock there came a terrific downpour of rain that kept up for a couple of hours. It then lessened a little, but rained hard until morning. By daylight the river had risen until none of the small creeks could be crossed. It was very muddy, and we had to cross the tops of high hills, at least doubling the work for the first 20 li, besides getting wet. The wind blew the rain through our clothes.

Last night the room we were in leaked in many places. There were no windows on the river front, and the wind blew the rain far into the room. I moved my bed two or three times before I found a dry spot.

When we got to Yoh Boh, the escort and the coolies had their minds made up that we would spend the night there. When I asked if there were ferry boats on which to cross the river, some said yes and others said no. It was raining. I started out for the crossing with one coolie. If we could cross I was to send back the coolie, and the colectors, the coolies, and the escort were to come on promptly. There was no boat in sight, but I waited awhile, and after awhile a boat came. I sent for them all to come. It was a long time before they appeared. The soldiers of my escort tried to pursuade them not to come. However, we went on 30 li to Ma Liu Tsang. The river was very high, and still rising.

There were very few insects out, so we did not secure many specimens.

June 18. This morning it was very hard travelling on account of mud puddles and rivlets that had to be gone around.

? inlets

This afternoon I had a coolie strike. All the coolies said they would quit and return to Suifu.

We have filled one box with insects since leaving Suifu.

The coolies, all but one, have gladly continued at their jobs. They will take me to Yachow, they say, when I may change coolies, engaging fresh ones.

We have unavoidably lost one day's travel because of the great rain.

June 19. We were favored by a comparatively cool weather. In the afternoon we passed through Lin Hua Chi and Tsu Sen Tan, where a great many salt wells are being operated.

I saw a small boy working in a coal mine, naked excepting for a cloth wrapped around his head instead of a hat. He had just been beaten because he couldn't pull a very heavy load of coal out of the mine.

Between Chien Wayand Suifu there are many Chinese with hair rather brown, but with black or dark-brown eyes.

At Tsu Gen Tan there are some great ash-heaps that have been piled up during the past two thousand years.

The coolies delayed a great deal about the middle of the day, when they should have hurried along. We therefore reached Kiating much after dark. The coolies were nearly all raw farmer boys who were not used to carrying. They were therefore so sore when they reached Kiating that they could go no farther. They would have taken at least four days to get to Yachow. I have engaged new coolies who guarantee to get me to Yachow in three days and at about the same price as the former coolies would have.

- June 20. The new coolies are much better than the old, but guarantees in China do not always guarantee. We may not reach Yachow on the third day. We reached Kia Kiang in good time, 70 li. The barometers have registered just about 50 feet above Kiating.
- June 21. Travelled 80 li to Tsi Heo Gai! We could have gone 30 li farther and have reached Yachow tomorrow, but Yang Fong Tsang has something like dysentery, and Ho the Skinner has malaria. It might have put these two important men out of commission had I gone on. I had to secure a chair for Yong Fong Tsang. I am rather tired tonight, but in good condition.

We passed some beautifully carved memorial arches. We also passed trees full of nests and birds pure-white, dull-brown, and partially white. We have not killed a single bird since leaving Suifu. We have not seen more than one variety of bird not previously secured, and we are saving our ammunition for the Moupin district, which we believe is richer in specimens. We are rather short of shotgun ammunition, and believe that this is the best policy.

We have now an escort of four soldiers to go as far as Yachow. Last year we had more because there were more brigands.

This town is 500 feet above Kiating according to the barometer.

June 22. Today I began shooting. I got a white flycatcher whose tail is shorter than any white flycatcher
I have previously secured. I got three other birds, of species formerly secured by me. We secured some excellent insects. There were robbers in control along the river. We passed over the mountain just above. Our escort of ten soldiers is of the stuff robbers are made of. They have probably been robbers before this.

I often locate or recognize strange birds by their calls. Today I heard a bird-call that I never heard before. Finally I located the bird, and shot it. It looks exactly like the ordinary black birds with yellow bills.

This morning I saw an eagle, or scavenger hawk rather, and put into my shotgun a No. 2 shell. This shell I had carried in my belt a few days, and the sweat from my body caused it to swell. As a result I could not draw it out of the gun again. The bird flew and I did not get a shot at it. Of course if I had fired off the shell, it would have come out easily. When I reached Lo Ba, the head militia officer called on me, and treated me very courteously. I therefore gave the shotgun to a coolie, saying that the gun was loaded, and must be kept pointed straight up, and no one should be allowed to touch it. A little later the gun exploded. The crowd in the teashop rushed outside. None was injured, but the load passed through a wall of split bamboo and buried itself deeply into an upright wooden post, Next time I will shoot the load out for I have concluded that no Chinese coolie can be trusted with a loaded gun. I wanted to save the cartridge.

This afternoon I had pointed out to me a hill or mountain on the south side of the river where a robber band is in possession, and I got definite evidence that the soldiers escorting me are ex-robbers.

We are passing the night 15 li from Yachow. During the past few days we saw many people planting rice. About two-thirds are women.

- June 23. Reached Yachow early. Filled boxes 315, and 316, insects gathered between Suifu and Yachow. Went to the official to secure escort, and secured coolies for Moupin. Repacked some of the boxes.
- June 24. Last night it rained very hard, and the rain continued all day to-day, making travel undesirable. We mailed boxes 315 and 316, dried some more insects we have, and continued arranging minor details for the trip to Moupin.
- June 25. The rain had nearly ceased this morning, so we started out at about seven o'clock, reaching Luh Shan about dark. On the way I saw the most beautiful front to a Chinese grave that I remember seeing. That is, it was the most beautifully carved. It was modelled after the memorial arch, and had carvings of vases

filled with flowers, theatricals, wars, etc. It was made of stone. I also saw a memorial arch erected in the Han Dynasty. It's a slab of sandstone upright on a great stone turtle's back.

We secured five birds and some good insects. I called on the local magistrate to see about an escort for tomorrow. He is 20 odd years old.

Here at Luh Shan the barometer registers 2500 feet above sea level.

June 26. We were delayed quite a while this morning because the escort was very slow in coming. They are their breakfast and changed their clothing before starting. When we reached Shuang' Ho Tsang the Christians gave us a dinner. Here we were delayed a long time by the coolies, who dallied unusually long smoking their opium. The road today was not very long, but was very hard, often rough, uneven, and steep. We went through a gorge before reaching Shuang Ho Tsang. In it is a natural bridge caused by the falling of great rocks from the overhanging cliffs. The water runs under the rocks, and the road goes over them. Mammal No. 255. For probably a half-mile the road has been blasted out of the side of a cliff above the stream. The road is from one to two yards wide, and has no fence on the outside. If one should fall off, he would fall between 60 and 100 feet into the swift mountain stream below. I have not heard of any accidents happening, but we would expect plenty of them in the United States along such a road.

We crossed a pass just before dark.

During the day we passed one spot where robbers frequently appear, between Luh Shan and Shuang Ho Tsang. The last name means the village of Two Rivers. There are two streams that unite here.

The country we are in is very rich in specimens. I think it would pay to work this district for months, if not for a year or two. My hopes are high for a fine collection this summer, both in quantity and in quality.

We have seen some wonderful scenery today, but we have passed over some of the worst roads, if not the worst, that I have ever traversed. This side of Shuang Ho Tsang it was especially bad. We have crossed a high pass. On both sides of the pass, the road crosses and recrosses a creek bed. Practically nothing seems ever to have been done to improve the road. Big boulders make travel difficult and precarious, especially at night. The road is very bad for day travel, and nearly impossible at night.

The last coolies with their loads reached the top of thepass just before dark. Most of them had been unable to smoke their opium or eat much of anything at Shuang Ho Tsang. At the top of the pass, several were very weak. One man sat on his load with his eyes partly closed, and his face gaunt and pale with misery. His head actually tottered from side to side like a man very sick, if not about to die.

In about four places this side of the pass, the road is narrow, and a slip of the foot would cause one to fall into the creek several feet below.

It became dark soon after we started down the mountain. The three lanterns

were used to help the coolies to see their way. We have had to stop for the night in an inn eight li from Lin Guan, where we expected to spend the night.

I am very tired and so are all the coolies.

I consider myself very fortunate that one or more coolies did not fall down and smash some of the collecting outfit.

June 27. Today we have crossed what is about the worst road that I have ever travelled over. Sometimes we would be on the side of a perpendicular cliff, the roaring stream directly below us, and the ledge less than two yards wide. There were hard climbs up, and hard climbs down. There are places where the road goes along the sides of perpendicular cliffs, poles being stuck horizontally into holes in the rock, and other rough rails or lumber being laid on these poles so as to make a bridge. There are many of these bridges, and the Chinese call them crooked bridges or uneven bridges. There are places where the bridges are directly over the roaring stream. A horse, mule or cow cannot go over this road. Some of our coolies simply could not make it to Moupin of. because of the bad roads with the hard climbs and descents, so bridge we are in a small, dingy inn 20 li from Moupin, having looking travelled today only 40 li. down from above

It rained this afternoon. Tonight I have lighted both gasolene lanterns, and we are securing the best catch of moths that we have caught since my last furlough. There is therefore a little recompense for not reaching Moupin today.

The Roosevelts passed through here this spring. Most of the Chinese do not realize that there are two brothers, and call \$25, or Tai Tsi which means heir apparent.

The coolies had a very hard time today. Last night three of my Chinese collectors went on into Yuin Kuan. They could not secure beds, and two of them have colds today. All slept poorly.

There are high mountains on both sides of us, and the hills are all covered with forests and bushes. Nature has a much freer hand here than in most parts of the world, and biological specimens seem to be more abundant.

June 28. We secured one of the finest catches of night moths, last night, that I have ever secured in Szechuan. We worked until 12:30.

This morning we started soon after dawn. The mere shack of an inn we stayed in last night is called Gay Dien; often written Kay Tien; or "high inn." Its altitude is 3300 feet according to the barometer.

On the road this morning, when passing a farmhouse, I imitated a chicken's squalling. A woman, a child, and two dogs came running out to catch the there who was stealing their chickens!!!

The coolies took nearly $\frac{1}{2}$ day to go 20 li, thus up-setting to some extent the program of the day.

The magistrate here is an old Suifu friend of mine. He will do everything

possible to help and to protect.

The town of Mupin is surrounded by high mountains. Near the twon the vegetation is very poor. I would say almost semi-arid. To secure much here, we will have to get off and work the high mountains that surround the town. The nearby hills are rather badly deforested.

The people here are very friendly, and so much so that it makes a burden and interfers to some extent in collecting. They crowd into the room and visit so much that it wears me out, and all but prevents me from doing important things.

I bought a white bear skin for about \$3.00 gold, but it has neither claws, ears, nor tail. I'll try to get a better one.

I am invited to a dinner by the head magistrate tomorrow at two o'clock. I'd prefer to be out hunting but it would not do to turn down the invitation by a magistrate.

We are getting lots of insects.

I am very tired and sleepy.

If this collecting trip is successful, it will not be because it is easy. It is as hard as any trip that has been taken. But we will try our best to succeed.

We can not mail packages at the postoffice. We cannot buy oil paper to cover specimens with. We cannot buy nails to nail our boxes with. Practically all the houses and furniture here are made without nails.

June 29. This morning I climbed the mountain with four hunters each having one hunting-dog. Several times we passed very near the edges of sheer precipices, and the man who was leading said to me, "Be careful, there is a sheer precipice below." We climed a very steep mountain, and the man who was carrying my load lagged far behind. I merely supposed he was weak. When he finally reached the top, he lay flat on his back, panting for breath. He soon left us, and went back to the village of Mupin. Later he claimed that we passed the spot where his father fell over a precipice and was killed, and meditating on this fact made him so weak that he could hardly carry his load. We did not see any wild mammals. I was given a feast by the head of the local militia, and all the officials and dignitaries of the city were present. After this I went hunting and netting. We killed nine birds today. Yang Fong Tsang and Chen Gih Uen are spending the night on a high mountain netting, trapping, and shooting. They will return tomorrow morning. Tomorrow I am invited to a feast by the magistrate, who is very friendly. He has sent orders to all the officials to give me every help possible. We are going farther west day after tomorrow, July first. Later we will go south of here.

I think we are getting more insects than we ever secured on a collecting trip before. We have not secured many first-class birds yet. This afternoon I secured five birds at four shots, one a fly shot at a very rapid swallow. There was a hard wind tonight, so we did not get many insects by means of the lantern.

The hunters and their dogs received as their presents two postal cards each, and were well satisfied.

I am purchasing insects from the boys by trading the Smithsonian postal cards for insects. These postal cards actually save money.

The Roosevelts made a good impression in this district, which cannot be said of some travellors.

The village of Mupin itself is not an excellent collecting spot. There are better collecting spots between here and Yachow, west, and south of here, hear this village trees and vegetation are not over abundant, and much of it or many of them do not attract birds and insects.

The bearskin I bought would have gone to the Roosevelt brothers, for they offered fifty dollars for a skin, but the ears began to rot, and were cut off, so the owners sold the skin to me for six dollars. It is a genuine specimen. I am numbering this specimen Mammal No. 256.

June 30. Yang Fong Tsang brought in five birds. We have spent considerable time making boxes for insects, taking care of the insects secured, etc. We will have over six boxes of insects tonight. I was invited to a feast by the magistrate, to dine with the officials and dignitaries of Mupin. We secured a good number of insects. I think there was a new kind of butterfly—as far as our collecting is concerned.

The road to Yao Chi is so difficult that it will take four days to get there but we expect to start tomorrow. It is not very good collecting here at Mupin.

Packed and nailed up six boxes of insects, boxes number 317-322.

July 1. The road is so rough this side of Mupin, and so steep, that all loads are carried on men's backs instead of on carrying-poles. We travelled rapidly, comparatively, but made a stage of only forty li.

There were many odd insects. It seems to me that we are getting more strange varieties than we did on the Songpan trip. However, so far we have seen no mammals or strange birds.

We are spending the night in a dirty farm-house, for there are no inns near here.

It seems to me that we are getting some very interesting flies.

Today we filled the ninth box of insects since leaving Suifu. Box No. 323. The altitude here is 4200 feet above sea level.

July 2. Today we had a great deal of trouble with the military escort. The first change of soldiers occurred about eight o'clock— at least, we arrived at the place where the change should be made about that time. We were to have ten soldiers, but were given only three, and were delayed fully two hours. The guns are muzzle-loading, and entirely innocent of any sights. The handles are rude, home-made affairs. We now have six soldiers with such guns, one of the soldiers being a boy about twelve years old. We were promised a bigger escort, but the soldiers failed to show up. One well-armed man could easily defend the whole lot.

We are spending the night at an elevation of 6400 feet. We have filled another box of insects today. Some of the insects look very interesting.

This box No. 324 makes ten boxes filled with insects since leaving Suifu. The flies look specially interesting, and I would not be surprised if, with good luck, the fly collection this summer equalled that secured on the Songpan trip.

We killed four birds, but only one seems interesting or rare. This district is not rich in birds along the river, near the main road.

Anybody who loves good roads and cannot endure bad roads had better stay away from Mupin. The roads are so bad that horses cannot "navigate" them. This is a rich district in specimens, but it is very hard work to get the specimens.

We had a very hard time getting food today. The inns are mere farmhouses, and there is often no food that can be purchased. Anybody looking for a snap job had better not come to Mupin on a collecting expedition.

July 2. Labelled box 325, pinned flies. Killed 4 birds.

We are at the altitude of 6400 feet.

July 3. Last night it rained, and we got the best catch of moths yet this year.

One of our soldiers got into a row with a civilian and gave him a bad cut under the right eye. I dressed the wound and persuaded them to quit quarreling. We filled box No. 326, insects.

The insects caught last night filled more than one box. These boxes are larger than the ones I generally use.

We secured two snakes. We arrived at Yav Gi on July 3rd.
The larger one looks very interestings

This afternoon I shot at a Mountain Goat at about 700 yards (I guess), and apparently hit him, but did not secure him. He escaped into some underbush and we could not find him.

We had no dogs to help.

July 4. The local official is friendly and helping us as much as may be expected.

Last night our netters caught night moths until daylight, catching more moths than I have ever secured to date, during one night. We formerly found it difficult to fill a box with insects in one day, and sometimes in several days. We are now averaging more than a box a day. The boxes we have been using since leaving Yachow are about twice as big as those formerly used. If our luck keeps up, we'll get the finest catch of insects ever caught in a summer expedition.

During the war last year, the Chinese soldiers burnt many houses, and the lamasery, in this village. Ruins of houses can be seen in all directions. We are now in the midst of aborigines, but all is quiet and peaceful.

July 4. Secured mammals 257, 258. It rained a good deal of the time, but Yang Fong Tsang made two hunting trips, and I made one. The insects secured last night filled two whole boxes. The carpenter is making more boxes rapidly.

I have made arrangements to engage six aborigine hunters for a trip on the high mountains to hunt the white bear and other mammals. They are to go with me. We will camp in a tent, for there are no houses.

We secured two snakes today.

I spent part of the afternoon taking care of specimens and preparing for the journey up to high altitudes.

Filled boxes No. 327-328 both filled with insects secured July 3, 1929.

These are large boxes.

July 5. Mammal skin No. 258 was given to me as a present by a Chinese, and I will give it to the Smithsonian Institution. It is not especially valuable.

I worked until 1:30 a.m. last night getting ready for the trip to the mountains.

We had a very hard time getting started this morning. The coolies were not ready, and had to smoke their opium. When we finally did get started, one of them could not carry his load and keep up. The new collector Lai had to carry half his load for him.

I killed four birds, one with red feet, a pheasant. The natives call it a Pine Pheasant. It is so badly shot up that I may be unable to preserve the skin.

We are in the wilderness, at the top of a range of the mountains, the elevation being 11500 feet. We have to climb higher tomorrow, and soon will be higher than Mt. Omei or Washan.

We are getting a fine catch of night moths. We got some rare flies today.

July 6. I killed six birds before breakfast, none of which are new to the Smithsonian collection. We climbed to the elevation of 12300 feet, where we are camping. We will hunt around here two or three days. We got a large catch of night moths last night. Our tent is right on the path or road for there is no other level spot on which to pitch a tent.

This summer I am living almost entirely on the food that can be purchased locally. I am not even using butter. The only foreign food I am using is half a tin of carnation milk each day. This cuts down the expense of travel a little. So far I have not suffered any, aside from occasionally making a whole meal on corn bread or the like.

I am trying hard to get a good collection this summer. If I do not succeed, it will not be because we have not worked hard.

I got a total of ten birds today, but hilled others that could not be found because of dense underbrush.

This afternoon we went hunting in woods so thick that a human being could hardly get through.

July 7. I shot two birds before breakfast. After breakfast we went hunting through the dense jungle-woods, then climbed to the top of this mountain, which is about 14000 feet high. We have been looking for mammals, especially the white bear, but so far success has not been achieved.

It seems to me that we are getting the finest catch of insects I ever secured on a summer expedition.

I am going to the city, to go from there to another location, but the aborigine hunters will continue to hunt, and bring in any specimens they secure.

July 8. We got down to the city about noon. Secured two small mammals, Nos. 259-260, and about eleven birds, besides insects. Yang Fong Tsang has killed over twenty birds since I went to the mountain. Chen Gih Yuen has filled four boxes with insects. Several snakes have been secured. Labelled boxes 329-336.

We had a hard time engaging coolies and had to secure the help of the local militia officer. I want to get off to higher altitudes tomorrow, rather than spending a day here where it is less fruitful.

Tonight we caught the largest number of night moths and beetles that I have yet secured in China. If our catch of insects this summer does not interest and satisfy the Smithsonian curators, I'll "miss my guess."

Several snakes were secured by Chen Gih Yuen and the skinner Ho during my recent trip.

During the last four days we have filled eight boxes of insects. (I skinned 14 birds-Ho, the rest).

The insects caught tonight should fill two boxes.

July 9. On the Ningyuenfu trip we were very badly handicapped on account of draught during the first half of the journey, and heavy rains during the second half. This summer it is just the opposite. Since reaching Mupin there has been fog a great deal of the time, and rain almost every day. Last night it rained hard all night, so that the roads are muddy, and the streams are swollen. This morning it is still raining, so that we can do nothing but take care of the moths caught last night. We hope to get started later in the day.

Later.—The sun came out, and we travelled north-west towards Gadze Geo, reaching the top of a mountain 11000 feet high. We killed only two birds, but one at least is a new variety, and both may be. We killed two or three in dense underbrush where they could not be found. That is a constant experience this summer. I want to camp on a very high mountain and collect there a few days, then collect directly south of Moupin where the Roosevelts get the goldenhaired monkeys. I am offering \$8.00 Mexican, \$4.00 gold, as a reward if a white bear is killed, or if I am led where I can kill one. The Roosevelts offered \$50.00 Mexican, I am told. We got a fair catch of insects today. We are using the Smithsonian tents a good deal this summer, and could not get along without them. We got another snake today.

Some of the poor coolies have only an oilcloth under them, and have nothing by the way of bedding over them, and it is cold. We will probably be better off tomorrow night, although it will be higher and colder.

I am hoping to get over a hundred boxes of natural history specimens this summer.

We had a steep, hard climb up the mountain this afternoon.

July 10. We are now at the altitude of 13400 feet. There are forests of rhododendrum and fir all around us. We got eight birds today, one of a new variety.

July 5-7. I collected on a mountain east of Yao Si and would have gone on to a higher and better hunting ground, but the territory was infested with robbers. To-day we almost literally stepped into a robbers' nest. I had hoped to work here two whole days and three nights, but the robbers are too near, and we must clear out of this place tomorrow morning. There are "Robbers, robbers, everywhere."

We set out nearly every trap we have tonight. The netters are going to use the lanterns until daylight catching moths.

July 11. Secured five mammals, numbers 261-265.

It rained very hard all last night. The rain came down in torrents. It was still raining at daybreak, and continued to rain off and on all day. On account of the brigands, I told the coolies to pack up and start down the mountain. They thought they would take advantage of me, and demanded higher wages. I am paying them fifty cents Mexican a day. I told them the wages were agreed on before we started, and there was no talking wages now. We would simply move down the mountain. We are now camped at the elevation of 10000 feet, with woods in all directions. I got a strange pheasant, and shot at a musk deer at long range. Apparently I hit the deer, but the wound was not serious. Chen Gih Yuen and some of the coolies got into a row, which I had difficulty in settling. We are getting short of food, and sent a coolie into Yao-Gi to bring food, and to tell the carpenter to come up with more insect boxes and his gum. He has been making boxes. They can not be purchase, and the local carpenters generally make very poor boxes.

Tonight, as usual, we are getting a fine catch of moths, and it is raining.

I have had a surplus of foreign paper every year, and thought I had plenty this

time, but in a day or two I'll run out of paper to wrap moths in and will have to buy local paper, which is very poor, and expensive. We are getting the largest catch of insects this year that we have ever secured.

In order to make good in securing natural history specimens, I am spending all my time collecting, and taking no time for taking anthropological measurements.

July 12. I spent the day climbing mountainsides, and forcing my way through dense forests with thick underbrush, practically all the time on ground so steep that it was difficult to walk. Much of the time you could not see an animal fifty feet away from you for the underbrush. We saw plenty of signs of animals, including the white bear, but not a single bear. I got a pheasant, a common bird, and two birds of a variety new to me. The pheasant is like the one I killed several days ago.

Yang Fong Tsang and Chen Gih Uen are working on the other side of the river.

I think some of the coolies have been stealing the rat-traps. One disappeared today that was tied to a twig by a wire.

During the last few days we have been partly living on wild herbs that the natives call mountain vegetables. One kind is a kind of a wild onion. I have been eating wild strawberries also.

We are running completely out of foreign paper with which to wrap insects, and will have to purchase cheap Chinese paper. It will not be easy to get even that.

July 13. Last night it was very cold and damp. There was a heavy dew. On account of the bright moonlight, we did not get many night moths. This morning we moved down to the creek and are living very comfortably in a shed owned by an aborigine. I spent the afternoon hunting in the dense woods, but, although there were many tracks, we did not see any wild animals. We got a new kind of snake. Yang Fong Tsang is still hunting on the other side of the creek.

The altitude here is 8600 ft.

We ran out of food this morning, but have now a good supply.

we are surrounded by dense forests. There are many wild animals but it is nearly impossible to get to see them.

My handwriting in this diary is often poorer than it would otherwise be, because I am often so sleepy that I can hardly hold my eyes open, when I write in the diary. We often work from daybreak until quite late at night. The crystal of my watch is broken, so I have to merely guess at the time.

July 14. In spite of the fact that last night was a "moonlight night," we got a very large catch of night moths, and the new netter "si voluntarily stayed up until almost daybreak. I woke up and sent him to bed.

The natives tell us that the best time to hunt wild mammals successfully is during the winter months when there are no leaves on the trees, and the animals can

be seen plainly. Now the foliage is so thick that they can hide successfully when only a few rods away. Yang Fong Tsang and I have tried hard to secure a good catch of mammals, but so far success has been meagre. I have shot some very good birds, and have been unable to find them in the thick underbrush. Yang Fong Tsang has had the same experience.

Today, in company with a guide, I went through woods so dense that in some places we had to crawl on our hands and knees. We saw deer-tracks, black-bear tracks, and white bear tracks, but we did not get a shot at any animal. We are getting new varieties of birds, but it seems harder to get birds on this trip than it did on the Tatsienlu trip, and nearly as hard to get mammals as on the Ning-yuenfu trip.

Last year our best contribution was probably in wasps and bees. This year our largest and best contribution will be in moths and butterflies. Already we have about 55 boxes mostly of moths and butterflies, and we secure about two boxes every day. If we can keep going at this rate during the two weeks at Mt. Omei and for two or three weeks in the section south of Suifu, we should collect over 100 boxes of dried insects this summer.

I got a very interesting frog today.

Our collection of snakes will be better than that of last summer, and the collections of beetles and flies should be excellent.

Today my shirt got so badly torn that I probably can not use it any more. I also cut big gashes on two of my fingers.

July 15. Labelled insect boxes no. 337-350.

Purchased two young wildcats. In the morning we went to the town of Yao Gi. We decided that we had better get to Gan' Yang Ba and see what we can do there.

We have already filled thirty-two boxes of insects, more, I think, than ever before in one summer's expedition. Last year it seemed to me that our best contribution was in wasps and bees. This year I think it will be in moths and butterflies. If I had more time here, I could secure some good mammals.

Chen Gih Uen trapped a small mammal. I purchased a white bear skin, and the two young wildcats, mammals 266-269.

For the last two nights we were unable to wrap the moths for lack of paper. Today I bought the commonest and cheapest Chinese paper I could get. It took five of us about two hours to wrap all we collected on those two nights.

July 16. Labelled box No. 351, insects. Purchased mammals 270, a water rat (I am told), and another white bear skin. I have purchased three white bear skins, prices \$6.00, \$3.50, and \$3.50, total \$12.80. The Roosevelts offered \$50.00 for one

skin, but of course they expected the claws on the skin and the skeleton. I am offering \$15.00 for a skin with the ears and the claws on, and with the entire skeleton. If I had more time to work here, I could get a white bear, and other mammals.

I have spent most of the day careing for specimens, and packing for the trip to Moupin. Yang Fong Tsang is off on a hunting trip, and the netters have been netting when it was not raining.

The white bear skin is mammal no. 271.

We are getting a smaller catch of night moths than we were a few days ago, apparently because of the full moon.

There are five main creeks branching off from this place, in five canyons. Their names, going in order from east to west, are Liu Lo Geo, To Dao Chiao Geo, Ga Dse Geo, Ma Huang Geo, and Li Ba Geo. We went up Ga Dse Geo, which is almost directly west from here.

July 17. This morning the local hunters I have been using brought in skins and skulls of two musk deer, mammals no. 272-273. The men made a very poor job of skinning them. The hair of one is falling out very badly. We passed over the worst bridges of this district today. They were on the sides of perpendicular cliffs overhanging a rushing torrent of water. These are as dangerous and nerveracking as the trip up Washan Mountain, I think. One of the bridges is in a very bad state of repair, and those passing over are in danger of losing their lives.

We passed two spots where robbers often appear and rob.

We did not see a single bird worth shooting today. It was rainy or threatening rain today, so we got few insects.

We are in the same inn with some soldiers going to Tao Gi to bring back opium.

This morning the two officials at Yao-Gi, one a Chinese and one an aborigine, sent me goodbye presents, and good wishes for a pleasant journey. In addition three aborigines gave me goodbye presents to show me their good will. One of the officials gave me a pound of butter and some deer meat.

I have secured a second white stone which is worshipped as a god by the aborigines.

July 18. Because of the full moon, no night moths are coming to our lanterns. After we first reached Mupin we had such success, securing one or two boxes of insects, more than we ever previously secured in one summer's work, and I began to have visions of 100 boxes of insects this summer. However, at present we are securing no night moths on account of the full moon.

Last night there was a very hard rain, amounting almost to a cloudburst. The

river is very high and muddy today, and all the streams are swollen.

This morning I heard that a creek ahead of us had washed away its bridge. There was no crossing the creek without a bridge. I said that we had a carpenter with us, and so we would build a bridge, and ordered all the coolies to bring along their loads and help. They were so confident that we couldn't build a bridge that they didn't come. It was five li from the inn where they were to the creek, and they thought they would have to carry back their loads to the inn again for the night. One of the coolies had the carpenter's saw. Although he was especially ordered to bring the saw along, he did not come. With no tool but the Smithsonian hunter's hatchet, the carpenter and I cut down trees and built a bridge across that roaring stream, so that we have made our full stage today. Not a nail went into that bridge. It was done in a comparatively short time. The trees that made the foundation were tied tightly together by ropes of tree bark made by the carpenter. The bridge is so strong that it will probably last a couple of years at least.

In some places the floods washed great rocks down from the hillsides onto the road, and uprooted trees.

We did not see a single bird worth shooting, and the day's catch of insects was small.

We expect to reach Mupin early tomorrow and to get away for a hunting trip at Gan Yang Batthe next day.

About noon the postal runner met us and gave me several letters, including two from home. One letter from Shanghai told of the acceptance of an article of mine on Image worship in China for publication in the Chinese Recorder.

Frequently our road leads us across a precipice 50 to 100 feet high overhanging the river, with no fence on the outside of the road, and the road only three or four feet wide. On both sides of the stream there are high mountains, covered with forests. Often the sides of the mountains are perpendicular cliffs or sheer precipices.

Yesterday at one place we could hear the road of great rocks falling on the opposite side of the river.

July 19. We got started soon after daylight and reached Mupin in the early afternoon. We stopped in an inn during a thunder shower. After our arrival at Mupin the weather settled down into a steady rain.

It is hard to preserve some specimens in the summer time. I worked for quite a while this afternoon on the muskdeer skins and on some bird skeletons where the maggets were busily working. I plan to go to Gang Yang Ba tomorrow morning. The time for collecting in this district is altogether too short.

Labelled box no. 352, wrapped insects \$255, flies, 354, wrapped insects.

July 20. We had the usual trouble in getting the coolies started this morning. The coolies delayed to smoke opium etc., etc. We were told that it is 60 li from Mutain here. We are now at Gan Yang Bá. It seems to me that it is the

longest 60 li that I ever travelled. There are few inns on the way. My dinner consisted of three raw cucumbers and some tea that I purchased from a farmer. We are staying in the home of the captain of the local militia. He is treating us royally, and helping in every way possible.

There is bright moonlight, topight, so we can not secure night insects. We got a fair catch of insects today.

The militia captain invited us to a fine Chinese meal tonight. He also gave me or traded to me a rare skin possibly of a lynx, which was killed in January 1928. It was killed on very high mountains south of Mupin. Mammal No. 272.

I hear many stories about the Roosevelts, who got their golden-haired monkeys near the clace. The Chinese say that they were exceedingly liberal with money. They also say that the Roosevelts had fine guns and were crack shots. It is said that one place robbers came to rob them, but that the brothers cocked their guns, and the robbers did not dare make the attack. It is said that the Chinese shoot ten odd shots to kill one monkey, but that the Roosevelts got a monkey practically every shot. These stories may or may not be true, but they are the stories that are being told.

In a way the Mupin collecting trip is a failure. In a way it is a real and genuine success. The Mupin District is too vast and rich to cover in so short a time. In the time available I could have done better if I had known the country intimately. This trip is in a way a successful survey. I know far more about the district than I did. If I had spent all the time here at Gan Yang Ba or at Yao Gi, or, still better, in Ga Dsi Geo, I would have had a better catch than I have of mammals. As it is, I have a better catch of snakes than last year. I have the best catch of moths and insects, already, that I ever caught on one expedition, and the summer's work is not half over.

To do the best work here, and get the best mammals as Roosevelts did, I should go two days farther up the highest mountains (elevation here is 5000 feet) and hunt there for at least one week. I have to teach for two weeks in a summer-training school beginning Aug. 1, allowing no time for delays of any kind, for robbers, rain, etc. I have only four days, including today to collect here at Gan Yang Ba.

My plan is to send Yang Fong Tsang back here about October 1, to hunt here at least two months, probably three, then to go to Yao Gi to hunt about as long. He ought to get a fine and valuable catch of mammals and birds.

I myself would like to spend two more summers in the Mupin district, one at Gan Yang Ba, and one near Y ao G i. I will do so if I can arrange it.

July 21. This morning I climbed a hill so steep that we could only get to the top by holding on to bunches of grass roots, twigs, stacks, etc. I had a fine shot at a mountain goat, but for the first time the Newton Highpower rifle failed to fire, and when I pulled the cartridge out, the bullet stuck in the gun. By the time the bullet was extracted, the goat had made a good get-away. We killed eleven birds and secured a fair catch of insects.

Today we secured mammal no. 275, a water rat. The carpenter was hunting and went to the stream to get a drink. He saw the strange animal diving under the

water, and occasionally reappearing in the same spot, He went to the spot, and when the mammal came out, he grabbed it and threw it onto the shore. We could not pull the bone out of the tail.

We caught a large garter snake, exactly like those caught at Suifu. I did not know this snake was to be found so high. Labelled box 355, insects; 556, insects.

I am a little under the weather -- very strenuous work, and not very good food.

July 22, 1929. We travelled up Shiao Geo to San Dao Pin, where we pitched our three tents. We are now beyond any human habitation, at the elevation of 6500 feet. I set a few tracs.

Yong Fong Tsang with one local hunter-guide is hunting on lower altitudes. I have six local hunters, the ones who helped the Roosevelts get the golden-haired monkeys. The golden-haired monkeys are at a much higher altitude, and I would need four or five more days than I can spare to go up there. I have to hurry out to Mt. Onei to teach in a summer training school. We are to hunt here two days. Tomorrow we will divide into two parties, one hunting on each side of the canyon.

We did not get many insects today, but those we did get seem very interesting.

Labelled box no. 357, insects.

July 25. Secured two small mammals in the traps, mammals 274, 275. Both Yang Fong Tsang and Chen Gih Uen are after mammals too.

We divided into two parties, one without dogs, and one with five dogs and several hunters. The party without dogs, which included me, went hunting after a black bear which has been appearing on a hillside recently. We saw tracks and signs, but not the bear. As to the other party, the dogs chased out three or four small deer or mountain goats. Mammals here when chased by dogs make for the creeks. Two of our hunters were waiting near the creek to shoot the mammals. A man was working on an open space cutting grass, when the four mammals started across the open space for the creek. This man tried to kill them with a club. The result was that the mammals swerved into the woods and did not go down to the creek. They were not seen afterwards.

During the past few days, on account of the full moon, moths have hardly been coming to the lanterns at all.

Note. There are five valleys or creeks coming together at or near Yao-Gi, and not three. From right to left in their order they are Liu Loh Geo, To Dao Chiao Geo, Ma Whuang Geo, Ga Dae Geo, Li B Geo.

July 24. Secured three small mammals in trees, Nos. 276-278. One had its head chewed off by ants or some other creatures. Chen Gih Uen has tranped five mammals, no. 279-285.

The hunters and I have had such poor luck and success in securing large mammals that we have gone back to Gan Yang Ba, and concluded the hunting for the present. There is no use throwing good Smithsonian money down an ampty tunnel. The foliage is so dense, the crass so high, and there are so many people around that this is the poorest time of the year to hunt large mammals. We leave for Mupin tomorrow, and for

Yachow next day. My main efforts now will be to preserve the specimens and to evade the robbers until the specimens are safely delivered to the postoffice.

The five Chinese collectors and I have worked very hard to make this collecting trip a success. We haven't taken one day's rest since leaving Suifu, excepting on the day at Yachow when we were compelled by the rain to delay.

Our hunters were the same men that helped the Roosevelts get the golden-baired monkeys, but they could get nothing now. The Roosevelts came through before the leaves were out and the grass had grown up.

July 25. Moved to Mupin. Secured two mammals, no. 284-285. Packed for the trip to Yachow.

Arranged for cooliss. Visited the magistrate and the captain of the militia.

July 28. The head coolie has engaged several women to carry loads. It is bad enough to have men act as beasts of burden, but worse when women are so employed. However, these women are reputed to be excellent coolies, able to carry a big man's load.

We got a fairly early start, and hoped to make a very long stage. However it was otherwise to be. There was a great slide of rock, which knocked down forty or fifty feet of the ridge. There was nothing left on the side of the percendicular cliff. We could not possibly remain the bridge, and it would be several days before the local magistrates repaired it. I got a boy to guide us over a path to the big, new road that is being constructed over the top of the mountain. The new road is not completed, and we had some very rough roads to travel over.

We have passed near the edge of so many precipices this summer that I think little of them, and seldom mention them in this diary. Today, however, the skinner Ho slipped and started to fall over a precipice head down. Another foot or two of sliding, and he would have gone over, and that would have been the end of him.

This has been a very hard day, and the coolies got in late with the loads, but we have made a full stage. Altitude of Lin Guan 3000 feet.

I had a difficult time securing an escort for tomorrow, but I now have the promise of four soldiers. The Mupin escort promised to come, but did not appear.

July 27. We got an early start. We crossed the pass and ate lunch at Shuang Ho Tsang. We passed one place where robbers often attack, and had guns all ready, but no robbers appeared. Secured two snakes and two very large frogs.

Three milities soldiers excorted us into Lu Shan. They did not wear their uniforms or badges, so when they reached Lu Shan the local military officers held them
up until we went to the magistrate and got him to order the militia soldiers and their
guns released.

milled five birds. The floods have played great havor with threes, crops, roads, and houses.

July 28. Last night there was a heavy thunderstorm with rains.

We reached Yachow in good time. I paid off the coolies. The raft has already been engaged for the trip down the river towards Mt. Omei At one spot today the escort was apprehensive about robbers. The weather is quite hot. I am stopping at the home of Dr. Crook, who will go to Mt. Omei with me. He has given valuable assistance during the trip to Mupin.

Labelled boxes 359 and 360, which have already been filled.

July 29. Today the five native collectors and I worked hard, and redried all the dry insects, and packed them. I mailed them by parcel post, a total of forty-three boxes in all. Some of these are very much larger than the average insect box. We mailed two boxes of dried insects when we passed through Yachow to Mupin, so that since leaving Suifu we have filled a total of forty-five boxes of dried insects. I believe that they will total over twenty thousand dried insects, the largest number I ever sent in as a result of one summer's expedition. There is also a large number of insects in small bottles that is not included in the above, to be sent later. It seems to me that the collection of insects I am sending in is not only the largest, but the richest in value that I have sent in to the Smithsonian Institution.

I went to the magistrate's office and requested an escort. I was told that every one of the magistrate's soldiers is out fighting robbers. All we can do is to prepare to defend ourselves if the robbers appear as they did last year. Dr. Crook, our foreign physician, at Yachow, is coming along on the raft with me tomorrow and if we are attacked he will use the Newton highpower rifle. Yang Fong Tsang will handle my Winchester repeating shotgun, the carpenter Wang will use a Chinese shotgun, and I will use the double-barrelled Smithsonian shotgun and the 45 colt automatic revolver. All the collecting outfit is on the raft and I am sleeping on the raft tonight to help look after the outfit.

There is an actual war going on between the Government troops and the brigands near Yachow.

July 30. A thunderstorm last night made the river rise, so that we reached Gia Giang early.

The gorges where the robbers last year ordered us to shore were free from robbers today.

The letter I wrote from Mupin ordering coolies from Mt. Omei apparently did not reach its destination, so that our coolies have not arrived. I am ordering coolies, and hope to reach the mountains after dark tomorrow night.

July 31. My coolies arrived at midnight. We travelled very rapidly, starting at daybreak, and reached my bungalow on Mt. Omei about 3:30 p.m. Yang Fong Tsang is hunting at a lower altitude. Chen Gih Uen has set some traps, and is using the lanterns tonight, but with only moderate success. Not many night moths are seeking the lanterns.

Our stay on Mt. Omei may be shorter than I expected, less than two weeks.

My friend, Rev. Geo. Franck, who collects moths and butterflies, says this has been a very poor season for collecting on Mt. Omei, both for moths and for butterflies.

Aug. 1. Collecting is poorer than usual on this mountain this summer, so I am glad that we can get away to Suifu a few days earlier than we expected to.

Yang Fong Tsang and Chen Gih Yuen go to the Si Gi Pin tomorrow to collect five or six days. This is a better collecting spot than this is. Lai and I will collect here. The carpenter is off salary, and doing some carpenter work instead of collecting for a few days.

- Aug. 2. Yang Fong Tsang and Chen Gih Yuen have gone to the Si Gi Pin to collect 5 or 6 days. Lai is netting here at Shin Kai Si.
- Aug. 3. Filled and labelled box no. 358. This number was probably skipped or overlooked at Yachow. 359-360 have already been filled and mailed to Shanghai.

Mr. Franck thinks that the fewness of lepidoptera here this year is probably due to the fact that last winter was an unusually severe winter. Also labelled box no. 361, insects.

Aug. 4. Last night moths were coming to the lanterns fairly well until about eleven o'clock, when a very strong, cold wind came up, with rain. That spoiled the moth collecting for the night.

The skinner Ho has malaria, but I am doctoring him.

It seems to me that Shin Hai Si on Mt. Omei is a very much poorer place in which to catch insects than it was a few years ago. I find it also nearly impossible to find wild mice to trap. In the future I shall collect here only when there is no better place to collect that I can get to.

- Aug. 5. Many of the moths that we are catching at Shin Kai Si this summer are quite small. They average as small as I would expect at the altitudes of about 13000 to 15000 feet. Some of them seem to be very interesting. Moths that we used to catch in 1920-1922 do not seem to appear at all now.
- Aug. 6. I tramped through underbrush and along sides of the mountain in search of holes of rats and mice, and found only two places resembling the haunts of wild mice. We are getting a fair catch of insects tonight. Secured a Dryanastes Mieux of which I am saving the skeleton.
 - Aug. 7. Secured a white-headed bird.

I am planning to have boxes made here by the carpenter for the specimens gathered on the Mupin trip so that the specimens can be mailed either here on the mountain or soon after reaching Suifu. I want to get in three or four weeks of collecting in the district south of Suifu, before the weather cools off. Filled and labelled boxes no. 362, 363, 364, all insects.

Aug. 8. The stars were so bright last night that the catch in night moths was smaller than usual.

Yang Fong Tsang and Chen Gih Yuen returned from Si Gi Pin, Mt. Omei, with insects, birds, and mammals. They rather neglected the insects in order to secure a good catch of birds and mammals. Some of the birds were poorly skinned, because done in a hurry. They secured a black monkey, and two pheasants which I had not secured before. The mammals are numbers 286-306. Labelled boxes 365-366, insects, 365 is from the Si-Gi-Pin.

Aug. 9. Yang Fong Tsang went on another hunting trip after wild boar. Chen and Lai are netting near Shin Kai Si.

The new moon is coming out, making it harder to catch moths at night by means of lanterns.

I spent some time packing for the trip to Suifu.

Aug. 10. We got a fair catch of moths last night in spite of the new moon.

Yang Fong Tsang killed a small deer, mammal no. 307, and is out hunting for a wild boar.

Aug. 11. A very heavy thunder-storm, with strong wind and torrents of rain came about 8:30 p. m. The storm was too fierce for catching moths. Filled and labelled boxes 367, Pinned insects, 368, wrapped insects. Spent some time packing and taking care of specimens.

Aug. 12. Walked 90 li to Su'Chi, a town near the Ya River, then took a boat for Kiating, Secured boat for the trip to Suifu.

The weather was exceedingly hot. The Chinese pastor Hang walked only about 20 li, and he is feeling badly tonight as a result. I'm glad that I do not have to walk again tomorrow, although I could do it. Another of the Suifu evangelists is also under the weather because of the heat.

Aug. 13. We started for Suifu at daylight, and were making good progress when a thunderstorm with rain and a strong upriver wind came up. Our captain did not stop at the tax-station at Li Chi. The tax collectors telephoned to the next town, at Gan Beh Sou, and we were stopped there. After much talking we were allowed to proceed.

We arrived at Suifu just after dark, and I am now in my own house.

Aug. 14. Labelled boxes nos. 369-374, insects in formalin.

I spent much time reckoning accounts with the Chinese collectors, and caring for specimens.

When I left Mt. Omei the deer-skin was not yet dry. When I took it out of the box last night maggots were working on it like made. The skin is partly spoilt.

I have received notice that I was elected a fellow of the RoyalAsiatic Society, conditional on the prompt payment of dues.

Aug. 14. Labelled boxes 375-378, bones, Box 379-381 skins, box 382 insects and quartz crystals, 383-385, 386, 387 bird and mammal skins. 388 snake, 389 from, 390 snake and frogs. box 391 snake, frogs, etc., 392 snakes, 393 snakes, 394 frogs, 395 snakes, 396 snakes, 397 snakes, 398 snakes, 399 snake, 400 frogs and snake. 402 insects in bottles (collected previous to Mupin trip. 401 frogs and snake, box 403 mammal skins, box 404 lynx skin.

Today I mailed fifteen boxes of insects, making a total of sixty boxes of insects collected and mailed to date on the summer collecting expedition. I also packed and labelled 29 other boxes of specimens collected this summer, manking a total to date of 89 boxes. In addition there are three white bearskins, one monkey (black) skin, and three deerskins, besides skeletons of a small deer and the monkey. This will make the largest total collected of biological specimens ever collected in one summer's collecting trip. I have also eight boxes of snakes, shrimp, etc., collected previous to the summer expedition, and yet to be packed. All these boxes are filled with biological specimens.

I am still planning to take a trip collecting south of Suifu, reaching near the Yunnan border.

This summer's collecting expedition may be divided into three parts, that near Mupin, that on Mt. Omei, and that south of Suifu. The third part is yet to be taken, but should be fruitful.

Later I expect to send Yang Fong Tsang and the skinner Ho to work collecting five or six months in the country about Yao Gi and Mupin, and they should secure some very valuable birds and mammals.

Owing to the fact that the films did not reach me in time, I took very few pictures this summer, but I expect to take more from now on.

Because there has been so extensive inter-breeding between the Chinese and the aboriginese about Mupin that you can never be sure that you are not measuring a half-breed, I did not take any anthropometrical measurements this summer—another very important reason is that the district was so rich in biological specimens that I felt impelled to spend all my time securing and caring for the specimens. During the next few weeks I expect to get among the Chuen Miao aborigines, and to take a good many measurements (anthropometrical).

Within a few days I will send in a financial statement to date. During this expedition I have refused to pay elaborate prices, even for good specimens, or the collection would have been larger. The expenses for military escorts was much smaller than last year, due to the fact that the country was in a much less disturbed condition.

Dr. Crook and Chinese friends at Yachow, and Chinese officials at Mupin, Yao Chi, and elsewhere lent invaluable aid.

It seems to me that the collection, while in some respects not all I had hoped it would be, is the largest and richest I have ever collected on one expedition. Here's hoping that it reaches the Museum in good condition, and that it is all that I think it is.